WHAT IS CLAIMED IS:

1. An image input apparatus comprising:

a micro-lens array having a plurality of micro-lenses; and

a light detecting element facing said micro-lens array;

wherein a single object image of an subject is obtained by rearranging image information of a plurality of object reduced images focused on a prescribed region on said light detecting element by said micro-lens array, and a relative position between said micro-lens and said prescribed region on said light detecting element, on which said object reduced images are focused as responding to each one of said micro-lenses, is arrayed differently for each of said micro-lens.

2. An image input apparatus according to claim 1, wherein said relative position shifts sequentially at specified quantity in vertical and horizontal directions in an array of said micro-lenses.

3. An image input apparatus according to claim 2, wherein said specified quantity is s/N.

:(s) is a pitch of said light detecting element, and (N) is a number of said micro-lens units.

4. An image input apparatus according to claim 1, wherein said relative position is formed adjustable according to a first rule based on a distance between said micro-lens and said subject.

5. An image input apparatus according to claim 4, wherein said first rule is that said relative position shifts sequentially by (s/N-D/m) in vertical and horizontal directions in said micro-lens array.

:(s) indicates a pitch of said light detecting element, (N) indicates a number of units of said micro-lens, (D) indicates a pitch of said micro-lens, and (m) indicates a magnification of said micro-lens for said subject. Also, (m) indicates a ratio (b/a=m) of distance (b) between said micro-lens and said subject to a distance a between said micro-lens and said light detecting element.

6. An image input apparatus according to any of claim 1 to claim 5, wherein, in process of obtaining a single object image by rearranging said image information of a plurality of object reduced images focused on said prescribed region on said light detecting element per said micro-lens, rearranged positions on said object image, to where said image information of said object reduced images are rearranged, are determined on the basis of said relative position.

7. An image input apparatus according to any of claim 1 to claim 3, wherein, in process of obtaining a single object image by rearranging said image information of a plurality of object reduced images focused on said prescribed region on said light detecting element per said micro-lens, said rearranged positions on said object image, to where said image information of said object reduced images are rearranged, are determined according to a second rule on the basis of a distance between said micro-lens and said subject.

8. An image input apparatus according to claim 7, wherein said second rule is that said relative position shifts sequentially by (s/N-D/m) in vertical and horizontal directions in said micro-lens array.

:(s) indicates a pitch of said light detecting element, (N) indicates a number of units of said micro-lens, (D) indicates a pitch of said micro-lens, and (m) indicates a magnification of said micro-lens for said subject. Also, (m) indicates a ratio (b/a=m) of distance (b) between said micro-lens and said subject to a distance a between said micro-lens and said light detecting element.

9. An image input apparatus according to any of claim 1 to claim 8, wherein said light detecting element contains a plurality of light detecting cells, and said light detecting cells are divided into a plurality of regions to which color filters are disposed respectively.